

February 12, 2003

TO: Internal File

THRU: Peter H. Hess, Environmental Scientist III/Engineering, Team Lead

FROM: Priscilla W. Burton, Environmental Scientist III/Soils

RE: Addition of Small Substation, Canyon Fuel Company, LLC., Dugout Canyon Mine, C/007/039-03A

SUMMARY:

Plate 5-2 shows the proposed location of a small substation. The location is currently used for explosives and other storage. These materials will be moved to the Gilson Well pad to make way for the small substation. Soil in the location of the small substation has been previously disturbed, except for that on the slopes. Additional cuts to enlarge the pad area will generate salvageable soil that will be stored at the topsoil storage location on the Soldier Canyon road.

Currently, the disturbed area is 22.88 acres. The disturbed area is on land owned by the State of Utah and Canyon Fuel Company. All construction is expected to be contained within the existing disturbed area boundary.

As-Built information from the construction will include a revised cross-section Y-Y' of Plate 5-3(4) and revised calculations of the additional soil salvage volume in Appendix 2-6 and Table 2-2 of the MRP.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

TECHNICAL MEMO

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

Plate 2-2 of the MRP shows the soil type as OB, mixed disturbed overburden adjacent to soil type 96, Rock Outcrop-Rubbleland-Travessilla Complex. These OB soils are the potential borrow area #1 described in Appendix 2-6 of the MRP.

According to the 1988 Carbon County Soil Survey, Travesilla soils are described as very gravelly fine sandy loam and typically have a depth of 20 inches over bedrock.

Findings

The information provided in the MRP adequately describes the soil resource.

OPERATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Enlarging the pad area for construction of the small substation will require removal of additional Rock Outcrop Rubbleland-Travesilla complex soils. The area of enlargement is expected to be 25 square feet (Plate 5.2). The application indicates that 30 cu yds of additional soil will be generated from this cut.

The soil will be stored at the topsoil storage area along the Soldier Canyon road. The Permittee has agreed to provide a more exact volume of soil transported to the storage area in Table 2-2 with "As-Built" information.

Concrete and gravel will be placed on the surface of the pad prior to construction (page 5-15). These materials should provide protection to the in place disturbed soils (Area #1 OB soils) that may be utilized during final reclamation as substitute topsoil.

Findings:

The information provided is adequate to meet the requirements of the Regulations, with the understanding that the volume of soil transported to the soil storage pile will be reported in Appendix 2-6 and Table 2-2 with the “As-Built” submittal in accordance with R645-301-231.400.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

The proposed location for disturbance is shown on Plate 5-2. The area of enlargement appears to be about twenty-five square feet. This change in surface configuration affects cross section Y-Y’ on Plate 5-3 (4). The Permittee has verbally agreed to revise the cross-section Y-Y’ on Plate 5-3(4) after the construction of the sub-station is completed.

Findings:

The information provided is adequate to meet the requirements of the Regulations, with the understanding that the cross section Y-Y’ on Plate 5-3(4) will be provided as an “As-Built” drawing in accordance with R645-301-521.141.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

TECHNICAL MEMO

Analysis:

Redistribution

Enlargement of the storage pad to make way for the small substation will not affect the topsoil mass balance calculations provided in the MRP Appendix 2-6. The OB soils in this area have the potential for use as substitute topsoil, but the Area #1 volumes were not calculated into the topsoil volumes for Dugout Mine. Enlarging the pad may generate an additional 30 cu yds of topsoil. The salvageable topsoil volume will be dependent upon the size of a large rock (the size of a truck) that is embedded in the slope (see photographs taken on February 4, 2003). The additional volume will be added to calculations in Appendix 2-6 and Table 2-2 of the MRP.

Findings:

The information provided addresses the minimum reclamation topsoil and subsoil requirements of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

The soils to be disturbed are Rock Outcrop Rubbleland-Travessilla soils. These soils have erosion factors (K) between 0.10 and 0.37 according to the 1988 Carbon County Soil Survey. The cut made into the exposed Travesilla soil will be highly susceptible to erosion from water. The plan indicates on Page 2-32 that the cut slope will be left at a 2h:1v and seeded with the interim mix (Section 341.200) to provide stability during operations in accordance with R645-301-742.113.

Findings:

Information provided in the application is adequate to control erosion as required by the Regulations.

RECOMMENDATIONS:

The small substation should be approved.